

IN THE CLAIMS

Claim 1. (Currently amended) A composition, comprising:

(i) a C_n-Ab, wherein C_n is a fullerene or nanotube comprising n carbon atoms, and Ab is a moiety comprising an antigen-binding site and is covalently linked to the C_n, wherein the antigen-binding site recognizes an antigen associated with a medical condition ~~and does not recognize the C_n~~; and (ii) a pharmaceutically-acceptable carrier.

Claim 2. (Canceled)

Claim 3. (Original) The composition of claim 1, wherein the C_n is substituted with one or more water-solubilizing groups.

Claim 4. (Original) The composition of claim 1, wherein the Ab comprises an antigen-binding site selected from ZME-018, SCFVMEL, dSCFVMEL, GD2, HuM195, herceptin, BACH 250, ML 3-9, C 6.5, or αMMP9.

Claim 5. (Canceled)

Claim 6. (Original) The composition of claim 1, further comprising a therapeutic molecule associated with the C_n-Ab.

Claim 7. (Original) The composition of claim 6, wherein the therapeutic molecule is covalently bound to the C_n.

Claim 8. (Currently amended) The composition of claim 6, wherein the C_n is substituted with a ~~charged~~ polar group and the therapeutic molecule is ~~ionically~~ associated with the polar group.

Claim 9. (Original) The composition of claim 6, wherein the therapeutic molecule is paclitaxel, doxorubicin, vincristine, or cisplatin.

Claim 10. (Currently amended) A method of treating a disease in a mammal, comprising:
administering to the mammal an effective amount of a composition comprising (i) a C_n-Ab, wherein C_n is a fullerene or nanotube comprising n carbon atoms, and Ab is a moiety comprising an antigen-binding site and is covalently linked to the C_n, wherein the antigen-binding site recognizes an antigen associated with the disease ~~and does not recognize the C_n~~, and (ii) a pharmaceutically-acceptable carrier.

Claim 11. (Canceled) ~~The method of claim 10, wherein the Ab is covalently linked to the C_n.~~

Claim 12. (Original) The method of claim 10, the C_n is substituted with one or more water-solubilizing groups.

Claim 13. (Original) The method of claim 10, wherein the Ab comprises an antigen-binding site selected from ZME-018, SCFVMEL, dSCFVMEL, GD2, HuM195, herceptin, BACH 250, ML 3-9, C 6.5, or αMMP9.

Claim 14. (Original) The method of claim 10, wherein the disease is an oxidative stress disease.

Claim 15. (Original) The method of claim 10, wherein the composition is administered at a dosage of from about 0.001 mg C_n per kg body weight per day to about 1 g C_n per kg body weight per day.

Claim 16. (Original) The method of claim 10, wherein the composition further comprises a therapeutic molecule associated with the C_n-Ab.

Claim 17. (Original) The method of claim 16, wherein the therapeutic molecule is paclitaxel, doxorubicin, vincristine, or cisplatin.

Claim 18. (Original) The method of claim 16, wherein the composition is administered at a dosage of from about 0.001 mg therapeutic molecule per kg body weight per day to about 1 g therapeutic molecule per kg body weight per day.

Claim 19. (Original) The method of claim 10, wherein the method further comprises administering an adjuvant to the mammal, wherein the adjuvant dissociates the therapeutic molecule from the C_n-Ab.

Claim 20. (Cancelled)